

Red John Pumped Storage Hydro Scheme

Volume 5, Appendix 17.1:
Mitigation Register

ILI (Highlands PSH) Ltd.

April 2019

Quality information

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Revision History

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Appendix 17.1 Mitigation Register

17.1 Introduction

- 17.1.1 This Mitigation Register provides a register for all mitigation measures that have been identified in the EIA Report Chapters for the Development, some of which are incorporated within the Outline CEMP and all other topic-specific Management Plans.
- 17.1.2 Table 3.1 and Table 3.2 collate the mitigation measures outlined in the EIA Report and have been separated into construction, operation and decommissioning phases. Decommissioning measures will be similar to that of construction; however any additional measures have been included in Table 3.3. These tables show the corresponding reference to the EIA Report, the relevant Management Plan(s) and also proposed responsibility for the preparation, approval and delivery of the mitigation.
- 17.1.3 Embedded mitigation as set out in Chapter 3: Design Evolution and Alternatives (Volume 2) is considered part of the design of the Development, as described in Chapter 2: Project and Site Description (Volume 2). As such, these are included within the subject of the Section 36 Application and therefore it is not considered necessary to secure the embedded mitigation.
- 17.1.4 The tables provided a source reference for each mitigation measure within the EIA Report. Whilst the measures have been separated by topic, there may be some cross references with other technical assessments, especially where shared receptors have been identified and mitigated by the same measure.
- 17.1.5 This Appendix was updated in April 2019 in response to the submission of Further Environmental Information (FEI). This updated Mitigation Register now includes all the additional mitigation and commitments which have been agreed post-submission of the Section 36 application. These are shown in red for ease of reference.

17.2 Landscape Environmental Management Plan (LEMP)

- 17.2.1 The Landscape Environmental Management Plan (LEMP) is a management plan to be primarily implemented once the Development has ceased construction and commences the operational phase. However, as many of the measures incorporated in the LEMP are to mitigate construction effects, it is referred to within the construction phase mitigation as well as the operational phase mitigation where enhancement measures can be implemented earlier.

Table 3.1 Construction Phase Mitigation Register

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility			
					Preparation	Approval	Delivery	
General Environmental Management Measures								
GEN01 - CEMP	Embedded	An Outline Construction Environment Management Plan (CEMP) is included and follows THC guidance (Ref 2). The finalised CEMP will be approved by THC, SEPA and SNH (where relevant) prior to commencement of construction. It will set out general environmental management measures, including pollution prevention, and the roles and responsibilities of Site personnel. The CEMP includes multiple topic specific management plans as necessary.			CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
GEN02 - CEMP	Embedded	Landscape and visual mitigation measures during the construction phase will be set out within the CEMP.	11.5.5		CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
GEN03 - CEMP	Embedded	Measures to avoid dust generation will be implemented as required during the construction phase.	7.6.26		CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
GEN04 - CEMP	Embedded	All Site personnel involved in the construction of the Development will be made aware of the environmental features at the Development Site and the mitigation measures and working procedures which must be adopted. This will be achieved as part of the Site induction process through the delivery of a Toolbox Talk. In addition, as required, briefings will be provided to all Site personnel in advance of works which are considered to present an increased risk of impacting upon environmental features.		Appendix 3.1: CEMP	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
GEN05 - CEMP	Embedded	An Ecological Clerk of Works (ECoW) will be employed on a full-time basis for the duration of the construction of the Development. The ECoW will be responsible for monitoring and ensuring the implementation of all mitigation measures and compliance with legislative requirements in relation to ecological features. The ECoW will also carry out pre-works checks for protected and/or notable species and provide other ecological advice as appropriate.	6.7.4	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
GEN06 – CEMP	Embedded	Standard good practice measures to protect species and habitats during construction will be incorporated within the CEMP. Proposed measures are set out within the Outline CEMP (Appendix 3.1).	Appendix 3.1:CEMP	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
GEN07 - BMP	Embedded	An Outline Biosecurity Management Plan (BMP) is outlined in the CEMP and will be finalised post-consent, which will set out the methods and procedures to be implemented by the Construction Contractor to minimise potential effects on aquatic habitats and species due to Invasive Non-Native Species (INNS).	7.6.1	CEMP BMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
GEN08- INNS	Embedded	Mitigation has been built into the design, which has been outlined in the CEMP and will be detailed in the BMP, to prevent the transport of INNS into other areas and to prevent the upstream transport of these species.	7.6.29	CEMP BMP	Applicant	THC	Construction Contractor
GEN09 - SUDS	Embedded	A temporary drainage system will be implemented during construction using sustainable drainage systems where possible to manage the risk of flooding and to treat run-off. Measures may include temporary ponds / settlement lagoons, ditches, silt fences, the use of silt busters or lamella clarifiers, dewatering / sediment bags (e.g. silt tubes), silt curtains; and measures to manage pollution risks such as designated bunded refuelling areas.	7.6.10 10.7.9	CEMP Surface Water Management Plan (SWMP)	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
GEN10 – CAR licence	Embedded	Temporary and permanent works affecting watercourses will be conducted in accordance with a CAR Licence from SEPA under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended). Temporary and permanent abstractions and discharges will also require an Abstraction Licence and CAR Licence from SEPA. Through consultation with SEPA appropriate treatment measures for construction site run-off, conditions on operational discharges, limits and conditions on abstractions will be determined.	7.6.23 9.7.6 10.7.10	CAR licence	Applicant	SEPA	Construction Contractor
GEN11 – SWMP	Embedded	The final Surface Water Management Plan (SWMP) will be prepared prior to the construction of the Development. The SWMP will describe all measures required to avoid, reduce and minimise adverse impacts on the water environment during construction, including setting out the scope in detail of any water quality or other relevant monitoring. Good practice drainage and water management measures are contained within the Outline SWMP (Appendix 10.5).	7.6.25 8.7.17	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Gen12 - SWMP	Embedded	Material management, including stockpiling and transport, will be carried out according to the good practice measures as set out within the Outline SWMP. These measures have been embedded to ensure that materials management is effective in minimising runoff and subsequent contamination of waterbodies.	7.6.26	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Gen13 - SWMP	Embedded	Wherever feasible, a 50 m standoff buffer between works, especially those involving material management, and aquatic habitats will be maintained to reduce the risk of runoff contaminating waterbodies. This buffer will be maintained as a vegetated strip to act as a sediment trap in the event that run-off does occur.	7.6.27	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
Gen14 - SWMP	Embedded	Where considered necessary to prevent silt-laden run-off into aquatic habitats, silt fencing will be installed alongside material stockpiles. This will be supervised and monitored by the ECoW to ensure that silt control measures are effective.	7.6.28	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Gen15 - SWMP	Embedded	SEPA Pollution Prevention Guidelines (PPGs) and Guidance on Pollution Prevention (GPP) (which will ultimately replace PPGs) will be followed at all times during the construction, operation and decommissioning of the Development.	Appendix 3.1:CEMP	CEMP SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Gen16 - SWMP	Embedded	Controls and contingency measures will be provided to manage run-off from construction areas and to manage sediment.	Appendix 3.1:CEMP	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Gen17 - SWMP	Embedded	In order to avoid potential pollution impacts to soils, vegetation and watercourses from machinery during construction, all refuelling and servicing of vehicles and plant will be carried out in a designated area which is bunded and has an impermeable base. This will be situated away from sensitive habitats and at least 50 m from any watercourse.	Appendix 3.1:CEMP	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Chapter 5: Geology and Ground Conditions							
G01	Embedded	Post consenting SI works will confirm soil and rock properties to assist the detailed design. SI works are likely to include additional peat probing to define the exact routes / location of above and below ground infrastructure.	5.7.1	Further SI works	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
G02	Embedded	The Phase 1 Peat Probing survey identified areas of peat along the C1064 which have been avoided via the design of the C1064 realignment, and so this is embedded mitigation within the design of the Development.	5.7.2	Design of the Development	Applicant	THC	Construction Contractor
G03	Embedded	There is a small area of peat under the Headpond which will be permanently lost. An outline Peat Management Plan (PMP) has been produced which demonstrates the approximate volumes of peat expected to be disturbed / excavated, the potential re-use options and the handling and storage methods to be used. The outline PMP is available in Appendix 5.3.	5.7.3	Peat Management Plan	Applicant / Construction Contractor	SEPA	Construction Contractor
Chapter 6: Terrestrial Ecology							
TE01	Embedded	Avoidance of impacts on Loch na Curra, Lochan an Eoin Ruadha and notable habitats surrounding the lochs through the siting of the Headpond.	6.7.1	Design of the Development	Applicant	THC	Construction Contractor
TE02	Embedded	Avoided of loss of semi-natural broadleaved woodland from removing the soil-storage area proposed in the Scoping Report through the creation of a Landscape Embankment. Native broadleaved trees will be planted, immediately adjacent to the Headpond location.	6.7.1	Design of the Development	Applicant	THC	Construction Contractor
TE03	Embedded	Routeing of the Temporary Access Track to minimise loss of Ancient Woodland (although restricted by the steepness of the slopes down to Loch Ness and the engineering constraints this poses).	6.7.1 and 8.7.1	Design of the Development	Applicant	THC	Construction Contractor
TE04	Embedded	The only permanent access road to be retained during the operational phase of the Development uses an existing track, thereby removing the requirement for further habitat loss and/or disturbance.	6.7.1 and 8.7.1	Design of the Development	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE05	Embedded	The proposed compound locations have been sited in areas of relatively low ecological value, including agricultural grassland (Compound 3) and on clear felled plantation forestry (Compound 1).	6.7.1 and 8.7.1	Design of the Development	Applicant	THC	Construction Contractor
TE06	Embedded	The implementation of ecological mitigation measures will be secured by the preparation of a Landscape and Ecological Management Plan (LEMP). This document will be produced prior to construction and must be reviewed and approved by relevant statutory consultees including SNH and The Highland Council. The LEMP will describe in detail the ecological mitigation measures which are required to minimise the effects of the Development.	6.7.2	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE07	Embedded	Material generated during the excavation of tunnels and the Headpond will be used to create the Landscape Embankment. It will be planted with a range of native broadleaved and coniferous tree species, reflecting the natural mix of species currently present on-site. It will be designed with cognisance of the ecological features for which adverse effects are predicted from the Development as follows: <ul style="list-style-type: none"> • When trees are of sufficient age / size to be able to support such structures, a minimum of two pine marten den boxes will be installed; • At least one artificial reptile hibernation refuge and one reptile basking bank will be constructed, following the design guidance provided in the Reptile Habitat Management Handbook (Ref 1); and • Open areas / glades will be left to create habitat diversity which benefits reptile and butterfly species. 	6.7.3	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE08	Embedded	A pre-construction survey for protected species within 100 m of the Development will be carried out, including all areas of woodland which are to be felled or thinned. This will be completed not more than six months prior to commencement of construction. The results of the pre-construction survey will be reported and communicated to the appointed construction contractor.	6.7.4	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE09	Additional	<p><u>Habitat</u></p> <p>There will be an overall increase of 71.8 ha of native broadleaved woodland as a result of the Development Restocking Plan (this is an increase of 7.1% on the baseline area).</p> <p>Indicative species composition is outlined in the LEMP post-consent and includes the following species:</p> <ul style="list-style-type: none"> • Scots pine; • Juniper; • Downy birch; • Rowan • Oak; and • Aspen. <p>The planting scheme will seek to create expanded areas of W19 juniper woodland and W17 / W18 heathy broadleaved / Scots pine woodland. Other woodland types will be created where appropriate (e.g. wet woodland types where ground conditions dictate). Planted trees will be native and of local provenance.</p>	6.7.7	Development Restocking Plan and LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE10	Additional	<u>Habitat</u> In order to create, where necessary, the heathy ground flora typical of W17 / W18, heather will be sown in the relevant planting areas. If possible, heather seed will be gathered from adjacent or nearby heaths by mechanically harvesting it from those areas, thus ensuring the most local provenance and preservation of local genetic stock.	6.7.9	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE11	Additional	<u>Habitat</u> Access tracks will be micro-sited as far as possible to minimise damage to flushed wet heath with grass-of-parmassus. This habitat occurs in the unmanaged area north of Park farm. Areas of more species-poor and drier bracken and acid grassland will be prioritised for access track creation in this area.	6.7.10	CEMP LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE12	Additional	<u>Habitat</u> Loss of the MG5 lowland meadow beside Loch Ness will be compensated by creation of similar meadow at a suitable location nearby. The precise location will be determined and included at a later stage. An appropriate MG5 seed mix will be sourced from a Scottish supplier for this purpose.	6.7.13	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE13	Additional	<u>Bats</u> A total of 25 bat boxes will be installed in retained mature woodland within the Development Site boundary to compensate for the potential loss of roosting habitat. This will include 20 typical summer roost models; three which are designed to be used by maternity colonies; and two which are aimed at providing a suitable hibernation sites.	6.7.15	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE14	Additional	<u>Bats</u> Further survey to establish the potential presence of whiskered bat will be conducted. This will involve a period of bat trapping to identify individuals in the hand. Should any whiskered bats be caught, they would be fitted with a radio tag and tracked to try and establish the location of a roost site.	6.7.16	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE15	Additional	<u>Badger</u> To minimise the likelihood of badger mortality due to increased traffic during the construction phase, a 20 mph speed limit will be applied to all construction traffic on all roads within the Development Site Boundary and a 30 mph speed limit will be applied to all construction traffic using the highway. This is expected to substantially reduce the risk of collision mortality.	6.7.18	CEMP CTMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE16	Additional	<u>Badger</u> The overall increase of native broadleaved and mixed native woodland represents ecological enhancement for badger compared to the existing plantation woodland.	6.7.19	Development Restocking Plan and LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE17	Additional	<u>Pine marten</u> To minimise the likelihood of pine marten mortality due to increased traffic during the construction phase, a 20 mph speed limit will be applied to all construction traffic on all roads within the Development Site Boundary and a 30 mph speed limit will be applied to all construction traffic using the highway. This is expected to substantially reduce the risk of collision mortality.	6.7.20	Development Restocking Plan and LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE18	Additional	<p><u>Pine marten</u></p> <p>In addition, as further mitigation for the loss of woodland habitat as a foraging, commuting and potential shelter resource, pine marten den boxes will be installed at suitable locations within the semi-natural broadleaved woodland near to Loch Ness and within the retained coniferous plantation woodland. At least one den box should be provided within a pine marten territory and that in commercial conifer forest this is likely to equate to 1 – 2 boxes per 2 km². A total of 2 boxes will therefore be installed.</p>	6.7.21	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE19	Additional	<p><u>Pine marten</u></p> <p>To minimise the likelihood of pine marten mortality due to increased traffic on public roads during the construction phase, a 30 mph speed limit will be applied to all construction traffic using the highway. This is expected to substantially reduce the risk of collision mortality.</p>	6.7.22	CEMP CTMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE20	Additional	<p><u>Red squirrel</u></p> <p>Pre-construction checks should be carried out near to the time of felling to search for the presence of red squirrel dreys as the locations of the nine previously identified dreys / structures are liable to change over time.</p> <p>Wherever possible, tree felling within 50 m of dreys will take place outside of the red squirrel breeding season between October – January, inclusive. Prior to felling, all dreys will be monitored to confirm whether they are occupied and to establish their breeding status.</p>	6.7.23	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE20 (cont.)		<p>If a drey is considered to be occupied but not being used for breeding, the tree would be climbed by a qualified ecologist and the drey carefully inspected for the presence of red squirrel. Any animals present will likely leave the drey on approach of the tree climber. Once the ecologist is satisfied that the drey is empty, the tree will be felled.</p> <p>Felling will not be permitted in any case where it is suspected that a drey is being used for breeding purposes. Such locations will be monitored until it is considered that breeding is over, at which point the tree will be climbed and the drey inspected to confirm this to be the case.</p> <p>All felling of trees containing red squirrel dreys will be done under licence issued by SNH. Similarly, any felling or construction works which are required within 50 m of a drey which will be retained must also be carried out under licence to permit the potential disturbance of that ecological feature.</p>					
TE21	Additional	<p><u>Red squirrel</u> As mitigation for the loss of woodland during construction, native broadleaved and mixed native woodland will be established across the Site.</p>	2.7.24	Development Restocking Plan and LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE22	Additional	<p><u>Red squirrel</u></p> <p>Several red squirrels were recorded dead on the B852 road, presumably as a result of collision with vehicles. As mitigation for this and the increase in vehicles which will occur along this road during the construction phase, a squirrel rope bridge will be installed across this road. This will be situated to the north of Compound 2, to mitigate for traffic coming from the direction of Inverness. This will be retained as a permanent feature following the completion of construction and will serve as an enhancement measure for red squirrels.</p>	6.7.25	CEMP LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE23	Additional	<p><u>Reptiles</u></p> <p>At least one artificial reptile hibernation refuge and one reptile basking bank will be constructed within the Landscape Embankment to mitigate for the permanent loss of reptile habitat within the footprint of the Headpond.</p>	6.7.26	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE24	Additional	<p><u>Butterflies, Dragonflies and Damselflies</u></p> <p>As mitigation for loss of habitat, the Embankment will be reinstated with earth following the completion of construction and this will be seeded with a mixture of plant species. The species selected will be appropriate for the location and underlying soil conditions (which are likely to be well-drained and therefore quite dry) but will be selected, as far as possible, to benefit the butterflies present at the Site. Species which will make up the seed mix will include heather, red fescue <i>Festuca rubra</i> agg., devil's-bit scabious and common dog violet, all of which are important egg-laying or food plants.</p>	6.7.27	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE25	Additional	<p><u>Butterflies, Dragonflies and Damselflies</u></p> <p>The Landscape Embankment will be replanted with native tree species. However, planting of this area will give consideration to butterflies, dragonflies and damselflies and will include habitat features for the benefit of these species. This will include the provision open clearings and glades within the woodland and the creation of new wetland areas. These could include areas of marshy grassland, suitable for species including small pearl-bordered fritillary, in addition to small ponds which should be of sufficient depth to avoid drying out, making them suitable for dragonflies and damselflies.</p>	6.7.28	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
TE26	Additional	<p><u>Invasive Non-Native Species</u></p> <p>The BMP will be updated prior to the commencement of construction. . The BMP will be informed by a pre-construction survey for rhododendron to accurately map all locations in which this species occurs. The BMP will set out in detail the construction methods to be adopted to ensure that this species is not spread by the Development.</p>	6.7.29	BMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
TE27	Additional	<p><u>Invasive Non-Native Species</u></p> <p>To prevent the influx of sika deer and provide a form of ecological enhancement, a deer fence will be installed around the ancient semi-natural woodland on the Development Site. In addition, control of those deer within the woodland will also be undertaken to ensure that individuals are not left within the enclosure. Installation of the deer fence should take place during the early stages of construction and will be retained as a permanent feature. Much of the ground flora within the woodland has been suppressed by over-grazing and the exclusion of sika deer (and other deer species) would likely lead to increased floral diversity and would represent ecological enhancement.</p>	6.7.30	LEMP Design of the Development	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
Chapter 7: Aquatic Ecology							
AE01	Embedded	Works in Loch Ness (and other watercourses) will require a Controlled Activities Regulations (CAR) licence application to SEPA before the works can proceed. Under the CAR licence the works in Loch Ness may be restricted as to the timing of their completion, in order to avoid the salmon migratory season when salmon will be moving through Loch Ness, and thus maximise salmon smolt escapement in line with local objectives. The CAR licence is likely to limit construction works in Loch Ness to between July and October or similar timescale. This will include the timing of piling, tunnel boring, and other noise and vibration-generating activities within the cofferdam and in the immediate vicinity of the loch shoreline.	7.6.2	CAR Licence	Applicant / Construction Contractor	SEPA	Construction Contractor
AE02	Embedded	Dust screens will be installed along access tracks to prevent contamination of the surroundings with dust and fine sediments.	7.6.12	Design of the Development	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
AE03	Embedded	Bottomless box culverts will be installed at watercourse crossings where existing crossing points cannot be utilised.	7.6.13	Design of the Development	Applicant	THC	Construction Contractor
AE04	Embedded	Where possible a 50 m buffer from watercourses will be maintained to avoid the need for mitigation such as temporary silt fencing.	7.6.14	Design of the Development	Applicant	THC	Construction Contractor
AE05	Embedded	The watercourse running through Compound 1, Allt a' Mhinisteir, may be culverted temporarily during construction to allow access tracks to cross the watercourse.	7.6.15	Design of the Development	Applicant	THC	Construction Contractor
AE06	Embedded	Underground Waterways and Tunnel infrastructure will be installed by directional drilling or tunnel boring machine (TBM) or drill and blast to avoid impacts to surface habitats, including watercourses.	7.6.16	Design of the Development	Applicant	THC	Construction Contractor
AE07	Embedded	A silt curtain or equivalent may be installed prior to the cofferdam being installed. This is to reduce the potential for any sediment to reach Loch Ness during construction.	7.6.19 and 10.7.22	Design of the Development	Applicant	THC	Construction Contractor
AE08	Embedded	Once the cofferdam has been removed there may be a requirement for some localised dredging to remove any material that has built up around the piles. A silt curtain (or equivalent) will be installed to prevent any pollution to Loch Ness. Dredging should be supervised by the Aquatic ECoW due to the potential for INNS and fish to be encountered during the works.	7.6.20 and 10.7.8	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE09	Embedded	Where culverts are required for watercourse crossings, these will be installed as per SEPA guidelines.	7.6.21	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
AE10	Embedded	Pre-commencement electric fishing surveys of the Glai na Ceardaich watercourse (sites KS08, KS09 and KS10), Allt a' Chruineachd (KS03), Allt a' Chnuic Chonaisg (KS12) and Allt a' Mhinisteir (KS05 and KS06) are recommended to inform mitigation for permanent and temporary watercourse crossings. (KS points as per Appendix 7.1).	7.6.30	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE11	Embedded	A repeat aquatic macroinvertebrate survey is recommended in the autumn sampling season prior to the commencement of construction (September to November).	7.6.30	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE12	Embedded	A pre-commencement survey of the proposed cofferdam and temporary pier works ahead of construction commencing in Loch Ness, for the presence of INNS, notably Nuttall's waterweed.	7.6.30	CEMP BMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE13	Embedded	Walkover survey of the watercourse crossing locations for INNS, both aquatic and riparian species (to be combined with pre-commencement surveys for terrestrial INNS).	7.6.30	BMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE14	Additional	To minimise the effects of noise from piling at the Tailpond on fish, there should be a 'soft start' to piling works to deter fish from the immediate area where physical injury may occur.	7.6.31	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE15	Additional	Works in Loch Ness should be carried out under the supervision of an Aquatic ECoW	7.6.32	CAR licence	Applicant / Construction Contractor	SEPA	Construction Contractor
AE16	Additional	A fish rescue will be required during de-watering of the cofferdam as it is highly likely that fish will congregate in these sheltered areas during construction and then become trapped as the cofferdam is sealed. This process will form part of the CAR licence, and detailed methodology will be provided for the licence application.	7.6.33	CAR licence	Applicant / Construction Contractor	SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
AE17	Additional	For materials delivered by barge, a local barge should be sourced to reduce the potential to introduce INNS from other waterbodies. This would preferably be a barge in existing usage on Loch Ness and the Caledonian Canal. Where possible, the barge should be inspected prior to arrival on Site and between deployments for the presence of INNS, and biosecurity measures implemented as considered necessary, according to check, clean, dry principles.	7.6.35	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE18	Additional	It is recommended that culverting of watercourses is supervised by the Aquatic ECoW. Culverting of watercourses will require sections to be isolated and fish rescues carried out, according to the conditions of the CAR licence. This process will be informed by the pre-commencement fish surveys of watercourse crossing locations.	7.6.36	CAR licence	Applicant / Construction Contractor	SEPA	Construction Contractor
AE20	Additional	Works in the Headpond area will be supervised by the ECoW to ensure that water management measures, including SuDS, drainage ditches and attenuation ponds, will be effective in preventing the runoff of silt-laden water to adjacent watercourses and waterbodies, notably Loch Ashie SPA.	7.6.38	CEMP SWMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE22	Additional	Material excavated or dredged from Loch Ness must be retained in the immediate area, i.e. stockpiled on the loch shoreline, to prevent the spread of INNS, including Nuttall's waterweed and <i>Crangonyx pseudogracilis</i> , which are known to be present in Loch Ness.	7.6.40	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
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AE24	Additional	<p>Biosecurity measures should be implemented throughout the development, following 'Check, Clean, Dry' principles. These measures will include, but are not limited to:</p> <ul style="list-style-type: none"> • Vigilance for the presence of INNS, including pre-commencement surveys, supervision and monitoring by the ECoW; • Vehicle washing facilities, including washing plant and vehicles before transferring between this and different construction sites; • Disinfection of Plant, PPE and materials after works in aquatic habitats, especially in Loch Ness where INNS are known to be present; • Ensuring where possible that materials are retained in the habitats where they originated, especially where INNS are known to be present, i.e. Loch Ness; • Drying facilities should be provided for equipment and PPE – some INNS can live, or seeds remain viable, in moist conditions for long periods; • Avoid the transfer of water between aquatic habitats on site. 	7.6.42	BMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE25	Additional	To avoid impacts to fish at the Tailpond Inlet / Outlet Structure, the Applicant will install a bubble net during operation.	FEI	Condition on the Section 36 consent	Applicant / Construction Contractor	NDSFB	Operator
AE26	Additional	In order to avoid illegal exploitation by poachers (which apparently occurs at other schemes in Loch Ness), CCTV will also be installed at the Tailpond Inlet / Outlet structure. In addition, an underwater camera will be installed to supplement a temporary monitoring regime (scheme to be prepared, agreed and approved by NDSFB) to monitor fish activity at the Tailpond Inlet / Outlet Structure.	FEI	Condition on the Section 36 consent	Applicant / Construction Contractor	NDSFB	Operator

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
Chapter 8: Ornithology							
O01	Embedded	Avoidance of the loss of important habitat for red-throated diver, black-throated diver, Slavonian grebe and osprey through use of the Option B Headpond. Avoidance of the loss of terrestrial habitat used by a range of notable species including curlew, lapwing and snipe through the selection of the Option B Headpond.	8.7.1	Design of the Development	Applicant	THC	Construction Contractor
O01 cont.		Avoidance of the loss of semi-natural broadleaved and juniper-containing heath habitats at Glaic na Ceardaich through the removal of the spoil disposal area from the Development Design.					
O02	Embedded	Creation of new broadleaved woodland habitat on the Landscape Embankment that once established will be suitable for a range of breeding bird species, potentially including several of conservation concern such as redstart and spotted flycatcher.	8.7.1	Design of the Development	Applicant	THC	Construction Contractor
O03	Embedded	The implementation of mitigation measures for ornithological features affected by the Development will be secured by the preparation of a Landscape and Ecological Management Plan (LEMP). This document will be produced prior to construction and must be reviewed and approved by relevant statutory consultees including SNH and THC. The LEMP will describe in detail the mitigation measures which are required to minimise the effects of the Development on important ornithological features. An Outline LEMP is available in Appendix 3.2.	8.7.2	LEMP	Applicant / Construction Contractor	SNH and SEPA	Construction Contractor
O04	Embedded	The Landscape Embankment will be planted with a range of native broadleaved and coniferous tree species such as:	8.7.3	LEMP	Applicant / Construction Contractor	SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	Responsibility				
			EIA Ref	Method of Delivery	Preparation	Approval	Delivery
		<ul style="list-style-type: none"> Berry-bearing species such as rowan <i>Sorbus aucuparia</i> and juniper provide important food resource for several bird species, including black grouse, and will be included within the mix of species planted; Open areas / glades will be left to create habitat diversity which benefits species such as spotted flycatcher, tree pipit and redstart, which were all recorded during field survey; Newly planted trees will be protected from grazing by the erection of fencing which prevents deer from accessing the Landscape Embankment. This fence will be clearly marked to reduce the risk of black grouse collision; and When trees are of sufficient age / size to be able to support such structures, a minimum of 30 nest boxes will be installed. These will have varying sizes / types of entry so as to be suitable to a range of species. The boxes will be constructed of a mixture of wood and concrete to maximise their durability. 					
O05	Embedded	A pre-construction survey for protected and notable species within the potential zone of influence of the Development will therefore be carried out. The pre-construction survey will use the same survey areas as adopted for this EIA and will be completed not more than six months prior to commencement of construction.	8.7.4	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
O06	Embedded	Wherever possible, tree felling and works which will directly impact upon areas of vegetation which could be used by nesting birds will be undertaken outside of the breeding season, this being between March and August, inclusive. Should felling occur in this time period, , a pre-works check for the presence of nesting birds will be conducted by the ECoW or other suitably experienced ornithologist.	8.7.4	CEMP	Applicant / Construction Contractor	SNH and SEPA	Construction Contractor
O07	Embedded	Each new construction / felling area should be checked for the presence of nesting birds not more than 72 hours prior to commencement of works as nests can be quickly established. Where any active nest sites are identified, suitable species-specific exclusion zones should be implemented and these must be maintained until the breeding attempt has concluded.	8.7.4	CEMP	Applicant / Construction Contractor	SNH and SEPA	Construction Contractor
O08	Embedded	If a bird listed on Schedule 1 of the Wildlife and Countryside Act 1981 is confirmed as or suspected to be breeding, the works exclusion zone to be implemented must be informed by the information provided in Ruddock and Whitfield (2007) and the site-specific characteristics including topography and the presence of other natural screening (e.g. woodland). The size of the works exclusion zone around breeding Schedule 1 birds must be agreed with SNH.	8.7.	CEMP	Applicant / Construction Contractor	SNH and SEPA	Construction Contractor
O09	Embedded	Full details of the requirements in relation to the protection of breeding birds, including recommended sizes for works exclusion zones, will be included within the LEMP post-consent.	8.7.4	CEMP	Applicant / Construction Contractor	SNH and SEPA	Construction Contractor
O10	Additional	Blasting within the Headpond area will not be permitted during the Slavonian grebe moulting period, which will be taken as 15 August – 31 October each year.	8.7.8	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
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O11	Additional	During the pre-breeding period, which will be taken to be 01 April – 15 May each year (based on species information provided in Forrester <i>et al</i> (2007)), blasting in the Headpond area will therefore be restricted to the use of charge sizes identified by the trial blasting as producing a maximum sound level of 75 dB(A) or lower.	8.7.9	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O12	Additional	To complement mitigation measures to be implemented to avoid effects on the Loch Ashie SPA / SSSI, monitoring will be carried out between April – October each year for the presence of Slavonian grebe. This will involve at observations of birds on Loch Ashie during blasting operations to ensure no signs of disturbance. In addition, although not expected, survey for breeding by Slavonian grebe on Loch Ashie will be conducted in accordance with the methods described in Gilbert et al (1998).	8.7.10	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O13	Additional	Fast-growing downy birch <i>Betula pubescens</i> will be included in the tree replanting species mix in all areas and can be expected to be of use to passerine species within five years (e.g. tree pipit use treetops for singing).	8.7.12	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O14	Additional	A total of 30 nest boxes will be installed in the retained woodland on Site (including retained Scots pine plantation and ancient semi-natural broadleaved woodland). Note that these boxes are additional to those which will be installed within the new planting areas once trees in these locations have reached a sufficient size to support such structures.	8.7.14	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
O15	Additional	Construction-related traffic (not including a small number of abnormal loads) will be prevented from using the C1064 between the point where it will be diverted near to Ach-na-Sidhe B&B and the junction with the B862 during the red-throated diver breeding season, taken to be April – September, inclusive (SNH, 2014). This restriction may be lifted if it is confirmed by the ECoW or other qualified ornithologist that no nest has been established on Loch na Curra by the end of July or if it is otherwise confirmed that a breeding attempt has concluded (either through failure or successful fledging of young).	8.7.15	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O16	Additional	Works within 500 m of Loch na Curra will be scheduled to take place outside of the breeding season for red-throated diver and Slavonian Grebe (April – September inclusive). Where this is not possible, the diversion will be programmed to ensure that works within 500 m of Loch na Curra take place as late in the breeding season as possible, to avoid the early period of incubation when birds are generally considered to be most susceptible to disturbance. Effort will be made to achieve this, for example by completing construction works on the road diversion outside of 500 m from the lochan first and leaving this area until last.	8.7.16	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O17	Additional	An artificial raft will therefore be installed prior to the commencement of construction in Loch nan Geadas, approximately 1.5 km to the south-south-west of Loch na Curra.	8.7.17	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O18	Additional	Post-construction an artificial diver raft will be installed in Lochan an Eoin Ruadha with the aim of benefitting nesting black-throated diver.	8.7.19	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
O19	Additional	The Development Restocking Plan (Chapter 12: Forestry, Volume 2) will result in improved habitat quality for black grouse in the area, in particular from the planting of birch, rowan and juniper on the drier parts of Ashie Moor, which will imitate natural open woodland with clearings.	8.7.21	Development Restocking Plan	Applicant / Construction Contractor	THC and FES	Construction Contractor
O20	Additional	Loss of the one recorded roost will be compensated by provision of a barn owl box in a suitable location. The location will be determined by inspection of available trees outside felling zones in the area near the roost site, and the box will be erected as far in advance of tree felling as possible.	8.7.22	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O21	Additional	As an enhancement measure, an artificial osprey nest will be erected either in a suitable tree or on a pole in a suitable location. The precise location will be determined following completion of construction	8.7.27	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
O22	Additional	As there is no guidance on acceptable air overpressure levels for nesting birds, the Applicant will undertake to test blasts under observation by a qualified ornithologist for adverse effects to divers.	FEI	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
Chapter 9: Flood Risk and Water Quality							
FR01	Embedded	During the construction phase, an Emergency Response and Flood Risk Management Plan will be implemented and have been outlined in the CEMP (Section 4.4, Appendix 3.1).	9.7.1	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
FR02	Additional	Any surface water storage and attenuation ponds will be designed appropriately with the locations, type and size confirmed as part of the detailed design (as identified in Section 4 of the FRA, Appendix 9.1). These will be located appropriately and consider any downstream receptors or connectively with other water resources to avoid impacts to shared receptors.	9.7.2	-	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
FR03	Additional	A drainage strategy will be prepared providing these details, building on the information requirements outlined in the FRA (Appendix 9.1) and submitted to THC for approval prior to construction.	9.7.2	-	Construction Contractor	THC	Construction Contractor
Chapter 10: Water Environment							
WQ01	Embedded	Appropriate siting of new infrastructure to avoid water bodies where possible, the position, depth and design of temporary and permanent inlet / outlet structures, the design of watercourse crossings, and surface water management and spill containment for a new substation at Compound 1.	10.7.5	Design of the Development	Applicant	THC	Construction Contractor
WQ02	Embedded	The construction of the Development would be in accordance with good practice as detailed by national guidance documents. Those relevant to the water environment are set out within the Surface Water Management Plan.	10.7.18	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ03	Embedded	Earth moving works and stockpiling that are likely to generate runoff contaminated with fine particulates should, where possible, be undertaken during the drier months of the year.	10.7.19	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ04	Embedded	When undertaking earth moving works periods of wet weather would be avoided, if possible, to minimise the risk of generating runoff contaminated with fine particulates. However, it is assumed some wet weather periods may be unavoidable, in which case secondary mitigation measures would also be deployed to control fine sediment laden runoff;	10.7.19	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
WQ05.1	Embedded	Measures to prevent runoff contaminated with fine particulates from entering surface water bodies directly or indirectly would include drain covers, sand bags, earth bunds, geotextile silt fences, straw bales, or proprietary treatment (e.g. lamella clarifiers).	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ05.2	Embedded	Due to the large areas of exposed soils, the potential for groundwater egress, and space constraints, it may be necessary to set up a temporary drainage system with a number of treatment train components.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ05.3	Embedded	If absolutely necessary, and only in consultation with SEPA, chemical flocculants may be used to enhance the removal of excessive fine sediments in construction site runoff.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ05.4	Embedded	The temporary drainage system shall also be designed to ensure that construction site runoff is adequately attenuated and does not result in an increase in flood risk downstream (i.e. adequate temporary storage will be provided).	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ06	Embedded	Topsoil/subsoil would be stored away from watercourses and preferably on flat lying land. Topsoil/subsoil will not be stored within 20 m of a water body on flat land, with increasing distance on steeper topography subject to site specific risk assessment by a suitably qualified environmental professional and / or the implementation of appropriate controls.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
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WQ07	Embedded	Temporary earth stockpiles should be in place for the shortest possible time. Permanent stockpiles and temporary stockpiles that are to be in place for longer than a two week period, will be either covered with geotextile mats, seeded to promote vegetation growth, or runoff from them isolated and drainage provided to a suitable settlement area or filtration system.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ08	Embedded	Appropriately sized runoff storage areas for the settlement of excessive fine particulates in runoff would be provided (C648 provides guidance on how this can be estimated).	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ09	Embedded	Mud deposits would be controlled at entry and exits to the Application Site using wheel washing facilities and / or road sweepers operating during earthworks or other times as considered necessary.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ10	Embedded	Tools and plant are to be washed out and cleaned in designated areas within the Site compound where runoff can be isolated for treatment before discharge to surface water drainage under appropriate consent from SEPA or otherwise removed from site for appropriate disposal at a licenced waste facility.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ11	Embedded	Debris and other material would be prevented from entering surface water drainage, through maintenance of a clean and tidy site, provision of clearly labelled waste receptacles, grid covers and the presence of site security fencing.	10.7.20	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
WQ12	Embedded	Construction works directly affecting water bodies will require careful management and the implementation of stringent working practices and mitigation. This applies to the construction of the Tailpond Inlet / Outlet structure within Loch Ness, and to other minor watercourses that may be crossed by new or upgraded access tracks.	10.7.21	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ13	Embedded	Any works in the channels of smaller watercourses will be undertaken in a dry working environment, where possible, with flow temporarily over-pumped or flumed or isolated from the working area using sand bags or other similar barrier.	10.7.23	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ14	Embedded	To prevent chemicals, fuels / oils and other such substances from entering the water environment, measures to control the storage, handling and disposal of these substances will be put in place prior to and during construction.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ15	Embedded	Fuel would be stored and used in accordance with the Control of Pollution (Silage, Slurry and Agricultural Fuel Oil) (Scotland) Regulations 2003.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ16	Embedded	Fuel and other potentially polluting chemicals would either be in self bunded containers or would be stored in a secure impermeable and bunded area (minimum capacity 110%).	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ17	Embedded	Any plant, machinery or vehicles would be regularly inspected and maintained to ensure they are in good working order and clean for use in a sensitive environment. This maintenance is to take place off site if possible or only at designated areas in the Site compound.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
WQ18	Embedded	All fixed plant used on Site to be self banded.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ19	Embedded	Mobile plant to be in good working order, kept clean and fitted with plant 'nappies' at all times.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ20	Embedded	An Emergency Response Plan would be prepared and included in the CEMP. Spill kits and oil absorbent material will be carried by mobile plant and located at high risk locations across the Site and regularly topped up. All construction workers would receive spill response training.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ21	Embedded	The Site is to be secure to prevent any vandalism that could lead to a pollution incident.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ22	Embedded	Construction waste / debris are to be prevented from entering any surface water drainage or water body.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ23	Embedded	Surface water drains on roads or the scheme compound area would be identified and where there is a risk that fine particulates or spillages could enter them they would be protected (e.g. covers or sand bags).	10.7.24	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ24	Embedded	Any on-site concrete batching facilities will be located at least 50 m from any watercourse, on flat ground, and suitable impermeable hardstanding so that surface water runoff can be intercepted for either treatment or disposal off-site and an appropriate licence waste facility;	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
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WQ25	Embedded	Suitable facilities for concrete wash water (e.g. geotextile wrapped sealed skip, container or earth bunded area) would be adequately contained, prevented from entering any drain, and removed from Site for appropriate disposal at a suitably licenced waste facility.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ26	Embedded	Any site welfare facilities would be appropriately managed and all foul waste disposed of by an appropriate contractor to a suitably licenced facility. It is expected that a suitably sized storage tank will be provided that would be periodically pumped out by a specialist contractor so that the water could be disposed of at a suitably licenced waste facility.	10.7.24	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ28	Embedded	No washing out of concrete and cement delivery vehicles will take place on-site without suitable provision for the washing out water and provision of a suitable location that is lined with a geotextile to prevent infiltration to ground. Such washing would not be allowed to flow into any drain and the CEMP would contain a methodology for dealing with any washing out water, or wheel wash. Wash water would be adequately contained, prevented from entering any drain, and removed from the Development Site for appropriate disposal at a suitably licenced waste facility.	10.7.25	CEMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ29	Embedded	During construction it is proposed to undertake a water quality monitoring programme to ensure that mitigation measures are operating as planned and preventing pollution. The purpose of the monitoring programme will also be to ensure that should pollution occur it is identified as quickly as possible and appropriate action is taken in line with the Emergency Response Plan. With regard to the identified private water supplies sourced from groundwater, water levels should be monitored to minimise derogation of supply.	10.7.26	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
WQ30	Embedded	The water quality monitoring programme will be developed by the Construction Contractor in consultation with SEPA and other relevant stakeholders during the process of obtaining CAR licences for works affecting or for temporary discharges to the waterbodies and watercourses in and around the Development Site. It is expected that this will include a combination of daily observations and monitoring using a calibrated hand held water quality probe downstream of the Site, and regular water quality sampling on a periodic basis or ad hoc depending on circumstances.	10.7.27	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
WQ31	Embedded	For private water supplies sourced from groundwater, the monitoring will also include water level measurements. To ensure that monitoring during construction is effective it will be necessary to carry out pre-construction monitoring. There is no guidance on how long or frequent this should be, but it is recommended that as a minimum there are six separate visits over a few months and taking in a range of flow conditions.	10.7.27	SWMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
Chapter 11: Landscape and Visual							
LV01	Embedded	The Temporary Access Track alignment is mainly contained within woodland, crossing the B862 at a point where earthworks would be minimised with an at-grade crossing and rises along the slope following a consistent gradient.	11.5.4	-	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
LV02	Embedded	An Outline Landscape and Ecology Management Plan (Appendix 3.2) has been developed to facilitate an integrated approach to landscape and ecological mitigation providing reinstatement planting and habitat creation which will seek to integrate the various Development components into the landscape and its wider setting.	11.5.6	LEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
LV03	Additional	The Headpond Inlet / Outlet Structure will be reduced to a maximum height of 4m (pending further optimisation at the detailed design stage which may reduce this further).	FEI	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
LV04	Additional	The Headpond contouring design will be agreed and approved in writing prior to the commissioning of the Development, and implemented under the supervision of a qualified Landscape Clerk of Works / Architect	FEI	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
LV05	Additional	The architectural and design finishes of the Headpond Inlet / Outlet structure identified in Section 3 of the FEI Report (April 2019) will be agreed and approved in writing with THC, in the same way that materials and finishes for all above ground structures will be (condition of the Section 36 consent).	FEI	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
Chapter 12: Forestry							
F01	Additional	The Applicant is committed to providing the appropriate compensatory planting.	12.12.4	Condition of the Section 36 Consent	Applicant	THC and FES	Applicant
F02	Additional	To provide an arboriculture survey	FEI	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
Chapter 13: Archaeology							

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
ACH01	Embedded	An archaeological watching brief will be undertaken during stripping in areas of known archaeology and virgin ground.	13.7.1	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
ACH02	Additional	Additional mitigation measures could include micro-siting of access tracks, or reducing the working width of access tracks within the Limits of Deviation, to avoid heritage assets.	13.7.2	Design of the Development	Applicant	THC	Construction Contractor
ACH03	Additional	Potentially suitable mitigation includes detailed landscape survey to confirm / disprove the presence of previously recorded archaeological remains, archaeological evaluation, and archaeological excavation prior to works commencing, followed by archaeological watching brief of topsoil and subsoil removal during construction.	13.7.3	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
ACH04	Additional	Suggested mitigation works include the relocation of the possible milestone / road marker (161) and the Merchants Stone (171).	13.7.4	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
ACH05	Additional	Detailed field survey is proposed to record the road stone quarries (158-161, 165, 167, 168 & 170).	13.7.4	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
ACH06	Additional	Field survey should also be undertaken to confirm the presence absence of the possible clearance cairns within and around the Headpond area (56, 63 & 73), and if remains are found to survive further mitigation might include accurate recording of the assets, along with archaeological excavation or an archaeological watching brief during construction. This is also the case for the site of Wester Drumashie Farm (172).	13.7.4	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
ACH07	Additional	The remains recorded in Dirr Wood (22, 98, 101, 122, 125, 126, 140, 146, 151 & 153) have already been subject to basic archaeological recording, so additional mitigation might include archaeological excavation to confirm their date, or monitoring by archaeological watching brief during construction works.	13.7.5	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
ACH08	Additional	It is unclear if any sections of the Military Roads are preserved under the existing roads due to later road rebuilding (17 & 18). Archaeological mitigation if the areas of the Military Road could include archaeological evaluation once the upper road (18) has been closed to traffic. This could be followed by excavation of a section of road if remains are found to survive and / or a watching brief.	13.7.6	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
ACH09	Additional	Define the limits of the cultural heritage features which may be destroyed by the creation of the Headpond and seek to relocate these features. Other enhancement measures include educational signage and cultural enhancements, such as the naming of the Headpond structure	FEI	Condition of the Section 36 Consent	Applicant	THC	Construction Contractor
Chapter 14: Socio-economic and Tourism							
SE01	Embedded	Diversions and closures to recreational routes to retain public safety, amenity and access across the Development Site will be implemented as set out in the Outline Access Management Plan (Appendix 14.3).	14.7.2	Access Management Plan	Applicant / Construction Contractor	THC and Landowner	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
SE02	Additional	A Meet the Developer Day or similar such event will be held post submission to inform and to open discussion with local business about the opportunities that may exist during construction and operation of the Development. The main aim of the event will be to actively engage local businesses in the construction supply chain. Direct and indirect investment in the local economy will be further encouraged through the appointed Contractor who will prepare a database of local suppliers (e.g. plant, materials, accommodations) to ensure that local services are used as much as practicable during the construction period.	14.7.3	Developer commitment	Construction Contractor	N/A	Construction Contractor
SE03	Additional	The Applicant is currently in discussions with the owners of the fish farm (Marine Harvest) to determine the most appropriate approach to moving the fish farm away from the Development. It is anticipated that the fish farm will be moved to a location where it will not be impacted by the Development during the construction or operational phases.	14.7.4	n/a	Applicant	THC and Marine Harvest	Applicant
SE04	Additional	Any temporary and permanent diversions will have due regard to use by walkers. The recommendations from British Standard 5709:2006 "Gaps, Gates and Stiles" and the requirements of the Highway Act 1980 and Countryside Act 2000 will be considered in consultation with The Highland Council PRow Officer and other parties.	14.7.11	Access Management Plan	Applicant / Construction Contractor	THC and Landowner	Construction Contractor
SE05	Additional	Prior to construction works the Access Management Plan including any diversions will be communicated to the local community.	14.7.13	Access Management Plan CEMP	Applicant / Construction Contractor	THC and Landowner	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
SE06	Additional	Appropriate signage will be used for both construction traffic routes and the recreation route network.	14.7.14	Access Management Plan	Applicant / Construction Contractor	THC and Landowner	Construction Contractor
Chapter 15: Traffic and Transport							
T01	Embedded	<p>In order to mitigate against delays and amenity loss associated with peak or abnormal construction traffic, a Construction Traffic Management Plan (CTMP) will be implemented for the construction period. A Framework CTMP is contained within Volume 5, Appendix 15.1. The finalised CTMP will include:</p> <ul style="list-style-type: none"> • The agreed route for construction traffic including any abnormal loads; • The necessary agreements and timing restrictions for construction traffic, for example Monday – Friday working only, prohibition during school drop-off and pick-up times, and prohibition during loading times at commercial premises; • Details of a proposed Condition Survey on access routes; 	Through-out	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
T01 Cont.		<ul style="list-style-type: none"> • Details of a proposed Condition Survey on access routes; • Proposals for maintenance of the agreed routes for the duration of the construction phase; • Proposals for monitoring and agreeing maintenance costs; • Escort arrangements for abnormal loads; • Route signing; • Details of the advanced notification to the general public warning of any construction transport movements, specifically AILs; • Details of information road signage warning road users of forthcoming AIL transport and construction traffic movements; • Arrangements for regular road maintenance and cleaning, e.g. road sweeping in the vicinity of the site access point as necessary, wheel cleaning / dirt control arrangements; • Details of actions that must be taken by contractors to mitigate the traffic impact of site workers travelling to site including avoidance of single occupancy trips; • Contractor speed limits; and • Community and emergency services liaison details. 					
T02	Embedded	The CTMP will be prepared in accordance with good practice and relevant British Standards. These will help to minimise effects of construction works and will include consideration of the construction phasing of the Development.	16.7.9	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
T03	Additional	To further reduce the impact of construction traffic, on-site concrete batching plant(s) will be utilised that will reduce the amount of vehicles associated with the transport of concrete material that is required to be imported to site from outside sources as the constituent materials can be delivered in bulk. Over the duration of the construction phase, this will result in a significant reduction in construction traffic.	15.7.4	Design of the Development			
T04	Additional	To mitigate the impact of disruption to local residents and road users, the finalised CTMP will detail the hours for which construction can take place and therefore the hours in which construction traffic will be travelling to and from the site. At present, this is assumed to be 07:00 – 19:00 Monday to Friday and 07:00 to 12:00 on Saturdays with no construction taking place on Sundays; however this is yet to be confirmed and is subject to an agreement between all relevant parties before construction commences. Should any construction work be required to take place on a Sunday, written approval from would be required from THC prior to any work taking place.	15.7.5	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor
T05	Additional	The CTMP may include restrictions on when construction traffic can pass sensitive areas such as Farr Primary School. Due to the school's proximity to the B851 and the single lane nature of the road as it passes the school, it may be necessary to prevent construction traffic from passing this point during school drop-off and pick-up periods due to the potential for children to be on the road and congestion caused by waiting vehicles.	15.7.6	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
T06	Additional	To improve the safety of road users and pedestrians, signage will be present near site access points to warn the public that they are likely to experience a high volume of HGV movements in the area. This, in addition to any necessary traffic management measures, will help mitigate any potential safety issues near access points on public highways. Further information related to the type and location of any road signs will be provided in the finalised CTMP.	15.7.7	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor
T07	Additional	<u>Temporary Site Entrance Relocation</u> Species of conservation concern have been found to be present at Loch na Curra adjacent to the C1064. As this road provides access to the main site entrance, the increase in traffic associated with the construction of the Development may result in disturbance to the protected wildlife at Loch na Curra as a result of the increase in noise and vibration. Should it be found that the level of disruption is unacceptable, then the site access point will be relocated from the C1064 to 'Public Road Crossing 2' on the B862 for the duration that the protected species are anticipated to be present at Loch na Curra.	15.7.8	CTMP	Applicant / Construction Contractor	THC and SEPA	Construction Contractor
T08	Additional	<u>Temporary Site Entrance Relocation</u> It is anticipated that remedial action will be required to maintain road user safety on the B862 due to the increase in traffic. The trimming and / or removal of roadside vegetation and trees at the hairpin bend south east of Kindrummond Farm Cottage would be necessary as existing visibility on the narrow bend is poor.	15.7.9	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
T09	Additional	<u>Temporary Site Entrance Relocation</u> Roadside vegetation trimming and / or removal would be required at the site access point as there would be a significant increase in construction traffic using the junction. Temporary traffic signals are anticipated to be in operation at this location throughout the duration of the Development's construction; however visibility improvements will maintain road user safety in the event of traffic signal failure.	15.7.9	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor
T010	Additional	<u>Temporary Site Entrance Relocation</u> It would be necessary to widen the existing passing places on the B862 between 'Public Road Crossing 2' and the B862 / C1064 junction as many are only suitable for small vehicles to pass each other safely.	15.7.10	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor
T11	Additional	<u>Temporary Site Entrance Relocation</u> To maintain the safety of road users and to further mitigate the impact on species of conservation concern that are present in the area, the use of Temporary Traffic Regulation Orders should be investigated to temporarily reduce vehicle speeds on the public road network near site access points and public road crossings to 30 mph.	15.7.11	CTMP	Applicant / Construction Contractor	THC, Police Scotland and Transport Scotland	Construction Contractor
Chapter 16: Noise and Vibration							
NV01	Embedded	The best available construction methods shall be employed at all times, having regards to the principles of Best Practicable Means (BPM) to minimise noise and vibration impacts during the construction of the Development.	16.7.1	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
NV02	Embedded	With regard to construction activities, agreement on operational hours and working methods will be sought from THC to minimise noise effects at NSRs. Working hours will be subject to agreement between the Construction Contractor and THC. In addition, adherence to working hours will be contractually implemented within any subsequent enforcement to be regulated by THC via planning conditions and also via the CEMP.	16.7.2	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
NV03	Additional	Use of site or activity boundary acoustic barriers to screen neighbouring receptors is proposed along the proposed temporary access road between the Tailpond and Compound 1, and along the C1064 to the west of the proposed Headpond. The use of site boundary or activity boundary temporary noise barriers can reduce construction noise levels by around 10 dB if line of sight from the plant to the receptor is blocked.	16.7.4	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
NV04	Embedded	It is likely to be a requirement of any construction contract that any constructors at the site comply with the recommendations in BS 5228.	16.7.5	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
NV05	Additional	Where possible, alternative piling methods (such as rotary bored piling) are generally preferable to impact piling, due to their reduced noise and vibration emissions. The contractor will consider all possible piling methods when determining the most appropriate method for construction of the cofferdam, and select low noise and vibration methods where feasible.	16.7.6	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
NV06	Embedded	Mitigation measures to achieve BPM (as required by the Control of Pollution Act 1974) may include the following provisions:	16.7.7	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
NV06 (cont).	Embedded	<ul style="list-style-type: none"> • Ensure all processes are in place to minimise noise before works begin and should ensure BPM are being achieved throughout the construction programme; • The appropriate use of plant with respect to minimising noise emissions and regular maintenance. All vehicles and mechanical plant used for the purpose of the works would be fitted with effective exhaust silencers and would be maintained in good efficient working order; • Ensure that modern plant is used, complying with the latest EC noise emission requirements; • Selection of inherently quiet plant where appropriate. Use of electrical items of plant instead of diesel plant; especially in sensitive locations. All major compressors should be 'sound-reduced' models fitted with properly lined and sealed acoustic covers which would be kept closed whenever the machines are in use and all ancillary pneumatic percussive tools would be fitted with mufflers or silencers of the type recommended by the manufacturers; • Machines in intermittent use would be shut down in the intervening periods between work or throttled down to a minimum; • All ancillary plant such as generators, compressors and pumps would be positioned so as to cause minimum noise disturbance. If necessary, acoustic barriers or enclosures will be provided; • Loading/unloading sites should be located away from residential properties and shielded from those properties where practicable; 	16.7.7	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
NV06 Cont.		<ul style="list-style-type: none"> • Arrange the site operations and vehicle routes to minimise the need for reversing movements, and to take advantage of rises in natural terrain to screen NSRs; • No employees, subcontractors and persons employed on the site should cause unnecessary noise from their activities e.g. excessive 'revving' of vehicle engines, music from radios, shouting and general behaviour etc. All staff inductions at the site should include information on minimising noise and reminding them to be considerate of the nearby residents; • Where possible, the hours of noisy operations should be planned considering the effects of noise upon nearby NSR, taking into account the duration of work and the potential consequence of any lengthening of periods of noisy work; • Where possible, the items of plant should be located furthest from the nearby NSR buildings or in locations where acoustic screening is provided by site cabins, buildings, or barriers. Plant known to emit noise strongly in one direction should, when possible, should be orientated so that the noise is directed away from the nearest NSR; • Materials should be lowered whenever practicable and not dropped. Any chutes and skips should be lined with sound attenuating material to reduce effect noise; and • Care should be taken when loading / unloading vehicles and dismantling scaffold. 					

Ref No	Measure Embedded / Additional?	Construction Mitigation Measure	EIA Ref	Method of Delivery	Responsibility		
					Preparation	Approval	Delivery
NV07	Additional	The appointed Contractor will identify potential effects of works noise and vibration once precise working methods (including underground works) and required plant have been confirmed, and in turn appropriate mitigation measures will be implemented.	16.7.8	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
NV09	Additional	Measurements of vibration are recommended at nearby receptors at the start of the proposed piling and tunnelling activities. If these levels are found to exceed the limits agreed with THC the contractor may be required to identify alternative methods of working which generate less vibration and/or restrict working hours for these activities.	16.7.10	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
NV10	Embedded	Consultation and communication with the local community will be covered in the CEMP and undertaken throughout the construction period. This will serve to publicise the works schedule, giving warning to residents regarding periods when higher levels of noise may occur during specific operations, and providing them with lines of communication where complaints can be addressed. Dissemination of such information is likely to encourage the community to be more tolerant of any disturbance considering the perceived long term benefits of the Development.	16.7.11	CEMP	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Table 3.2 Operational Phase Mitigation Register

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
General Environmental Management Principles and Responsibilities							
GEN18 - EMS	Embedded	The Development will be operated in accordance with the Development Operator's environmental management system.		EMS	Operator	-	Operator
GEN 19	Embedded	All Site personnel involved in the construction, operation and decommissioning of the Development will be made aware of the environmental features at the Development Site and the mitigation measures and working procedures which must be adopted. This will be achieved as part of the Site induction process through the delivery of a Toolbox Talk. In addition, as required, briefings will be provided to all Site personnel in advance of works which are considered to present an increased risk of impacting upon environmental features.	6.7.7	EMS	Operator	-	Operator

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
Chapter 7: Aquatic Ecology							
AE25	Embedded	The design is for a completely 'closed-loop' system, whereby water will be drawn from Loch Ness to the Headpond, and returned to Loch Ness via the headrace tunnel or spillway. Therefore the risk of water spilling into adjacent waterbodies will be negligible. This will also be ensured by the incorporation of a 4 m gap between the maximum water level in the Headpond and the top of the Headpond Embankment, with the addition of a wave wall on top of the Embankment. This will ensure that the risk of cross-catchment transfer of water is negated.	7.6.11	Design of the Development	Applicant	THC	Construction Contractor
AE26	Embedded	The permanent Compound 1 will be located to the west of the Allt a' Mhinisteir watercourse to allow the watercourse itself and associated habitats to be reinstated.	7.6.15	Design of the Development	Applicant	THC	Construction Contractor
AE27	Embedded	A mesh Screen of 2 mm aperture, 90 m wide and 30 m deep, will be installed at the Inlet / Outlet on the shore of Loch Ness. The Screen will prevent the entrapment or impingement of fish, and the Inlet of INNS.	7.6.17	Design of the Development	Applicant	THC	Construction Contractor
AE28	Embedded	The maximum Inlet velocity from Loch Ness will be 0.15 m/s given the size of the Inlet structure and Screen.	7.6.18	Design of the Development	Applicant	THC	Construction Contractor

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
AE29	Additional	Regular monitoring surveys for the presence of INNS, to be combined with surveys for terrestrial INNS, in watercourses within the Site.	7.6.43	EMS	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE30	Additional	Regular monitoring of the Inlet / Outlet on the shore of Loch Ness should be carried out to ensure the integrity of the Screen and assess any potential impacts in relation to fish, in particular migratory salmon and other species due to the potential for distraction and entrapment / impingement.	7.6.43	EMS	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
AE31	Additional	Where permanent culverts are installed in watercourse crossings, it is recommended that these are monitored to ensure that there are no lasting effects on fish passage, especially in the event that brown trout or other protected / notable species are shown to be present in pre-commencement fish surveys.	7.6.43	EMS	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
Chapter 9: Flood Risk and Water Resources							
FR04	Additional	During operation, increased flood risk as a result of increased flood levels in Loch Ness and downstream flows in the River Ness would be contrary to the guidance set out in the THC supplementary guidance. The detailed flood risk assessment undertaken as part of the River Ness flood protection scheme shows that areas upstream of the area defended by the flood protection scheme are at risk during events in excess of the current 1 in 10 year event. It is therefore proposed that generation is limited to a maximum water level in Loch Ness of 17.6 m AOD, the current day 1 in 10 year flood level.	9.7.3	CAR Licence	Applicant	SEPA	Operator
FR05	Additional	It is proposed that abstraction is limited to a minimum water level in Loch Ness based on the proposed volume of abstraction. A monitoring arrangement and control procedures will be installed at the Inlet / Outlet structure on Loch Ness to measure water level at Loch Ness and to limit, or stop the abstraction of water if water level in Loch Ness falls below the levels set out in the operational rules (as set out in Table 9.7 of Chapter 9: Flood Risk and Water Resources, Volume 2).	9.7.5	CAR Licence	Applicant	SEPA	Operator

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
Chapter 10: Water Environment							
WQ32	Embedded	It is proposed that the water quality within the Headpond is monitored on a routine basis including observations, in situ measurements using a probe and or secchi disk for turbidity, and regular water samples for laboratory analysis.	10.7.32	EMS	Applicant / Construction Contractor	THC, SNH and SEPA	Construction Contractor
WQ33	Embedded	To avoid fish and debris entrainment, the Tailpond Inlet / Outlet Structure where the Waterways terminate into Loch Ness, will incorporate a screen with 2 mm apertures. The screen also acts as an energy dissipation measure to reduce the velocity of the water discharging from the Development, and therefore limits the potential impacts on water thermal stability (especially when stratified). The Spillway outlet will also contain energy dissipation components to reduce the force of the water entering the loch and causing scour of the bed.	10.7.7	Design of the Development	Applicant	THC	Construction Contractor
WQ34	Embedded	A concrete apron will be installed on the bed of Loch Ness in front of the Tailpond Inlet / Outlet Structure. The area will depend on site specific bathymetry survey to be undertaken at a later stage. The purpose of the apron is to avoid any scour of the bed.	10.7.11	Design of the Development	Applicant	THC	Construction Contractor

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
Chapter 11: Landscape and Visual							
LV03	Embedded	The area around the Headpond has been kept as uncluttered as possible through minimising the requirement for additional structures and buildings in the Development design.	11.5.4	EMS	Applicant	THC	Construction Contractor
LV04	Embedded	The height of the Embankment above ground level has been minimised through the orientation of the Headpond.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
LV05	Embedded	Excavated material will be used to create the Landscape Embankment to soften the engineered slopes of the Headpond Embankment and also allow native woodland to be planted to partially screen the Headpond and Embankment from view.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
LV06	Embedded	Reinstatement of forestry through the adoption of the Development Restocking Plan (Chapter 12: Forestry, Volume 2) will help to assimilate the Development into the landscape.	11.5.4	Development Restocking Plan	Applicant / Construction Contractor	THC and FES	Construction Contractor
LV08	Embedded	Permanent infrastructure associated with the Tailpond Intake / Outlet Structure, has been minimised so that the number of structures present on the loch shore is reduced. This includes the screen cleaning system which is now housed within the structure itself thereby limiting the need for additional obtrusive structures and associated railings along the loch edge.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
LV09	Embedded	The Tailpond wave wall will be clad in local natural stone to assist in integrating it within the immediate loch side setting.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
LV11	Embedded	The Temporary Access Track will be fully reinstated once the Development is operational.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
LV12	Embedded	The architectural design of the buildings and structures within the Development Site will seek to assimilate them into the surrounding landscape as much as possible by using simple, clean forms and a palette of materials and colour which lessens the contrast with the surrounding landscape.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
LV13	Embedded	The buildings at the loch shore will reflect the local vernacular of either white rendered facades with slate pitched roofs or stone clad structures.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
LV14	Embedded	The Battery House and structure around the Substation will reflect a more agricultural vernacular to help in assimilating these large structures within the re-stocked woodland.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
LV15	Embedded	The apparent scale of the Headpond Inlet / Outlet Structure will be reduced by a careful combination of colour / tone and materials in order to break up the overall massing of the structure which will sit on top of the Headpond Embankment. A combination of rendered facades using muted earth tones combined with the use of wood panelling and / or sections of stone cladding would assist in reducing the apparent scale of the structure within the landscape.	11.5.4	Design of the Development	Applicant	THC	Construction Contractor
Chapter 14: Socio-Economic And Tourism							
SE07	Additional	Elements of the Tailpond Inlet / Outlet structure are permanent and can be used by the local community. For example the jetty can be left in-situ for those who wish to use Loch Ness for aquatic recreation.	14.7.7	Section 75 agreement	Applicant / Construction Contractor	THC and Landowner	Construction Contractor
SE08	Additional	Education signage will be erected within the Development Site. This signage will include information on the local recreational routes and present self-guided routes. There will also be educational signage which could include information of the local flora and fauna. Details of signage will be agreed with the landowner and local community. Examples of signage is provided in Appendix 14.3: Outline Access Management Plan.	14.7.8	Access Management Plan	Applicant / Construction Contractor	THC and Landowner	Construction Contractor

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan	Responsibility		
					Preparation	Approval	Delivery
SE09	Additional	Details of the types of recreational route reinstatement will be provided when a construction contractor has been appointed. Consultation with the local community and relevant stakeholders will be undertaken to determine the appropriate type of material to be used in line and any additional signage which may be required to reinstate the routes within the Development Site. It is likely that excavated material unsuitable for use in the construction of the Headpond will be suitable for reuse in creating diversions and reinstatement of access routes.	14.7.9	Access Management Plan	Applicant / Construction Contractor	THC and Landowner	Construction Contractor
SE10	Additional	Details of the existing recreation routes which will be upgraded post-construction will be provided when a construction contractor has been appointed.	14.7.10	Access Management Plan	Applicant / Construction Contractor	THC and Landowner	Construction Contractor

Table 3.3 Decommissioning Phase Mitigation Register

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan
DECOMMISSIONING				
General Management Measures				
GEN 19	Embedded	All Site personnel involved in the decommissioning of the Development will be made aware of the environmental features at the Development Site and the mitigation measures and working procedures which must be adopted. This will be achieved as part of the Site induction process through the delivery of a Toolbox Talk. In addition, as required, briefings will be provided to all Site personnel in advance of works which are considered to present an increased risk of impacting upon environmental features.	6.7.7	Decommissioning Plan
Chapter 6: Terrestrial Ecology				
TE44	Additional	<u>Invasive Non-Native Species</u> Prior to decommissioning of the Development a full survey for the presence of invasive non-native species would be carried out. Based on the results of this survey a decommissioning INNS RAMP would be prepared detailing the measures for control of those species identified as presenting an ecological risk.	6.7.33	Decommissioning Plan

Ref No	Is Measure Embedded or Additional?	Operational Mitigation Measure	EIA Ref	Relevant Management Plan
DECOMMISSIONING				
Chapter 14: Socio-Economic And Tourism				
SE12	Additional	The potential adverse and beneficial effects that could arise during the decommissioning phase are similar to those identified for the construction phase. For this reason, mitigation measures are also likely to be similar. These will include developing an appropriate CTMP to ensure that construction related traffic does not cause unnecessary delays that could deter tourists from coming to or remaining in the area.	14.7.15	Decommissioning Plan
Chapter 15: Traffic and Transport				
T13	Additional	Should it be necessary to decommission the Development, a decommissioning plan will be created prior to any decommissioning works taking place. This plan will detail the measures that are to be implemented to mitigate the disruption caused during decommissioning.	15.7.12	Decommissioning Plan

17.3 References

- Ref 1. Edgar, P., Foster, J. and Baker, J. (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.
- Ref 2. The Highland Council. (2010). Construction Environmental Management Process for Large Scale Projects [Online]. Available: <https://www.highland.gov.uk/downloads>. [Accessed: 05/09/2018]

